



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Michael Rumer, Jack Griswold, Tom Dorsh, Michael Kwok Leung Ng,  
David E. Reedy, Paul D. Healey, Michal Danek and Reed W. Rosenberg

Assignee: Novellus Corporation

Title: PVD Deposition Process For Enhanced Properties of Metal Films

Serial No.: 09/675,627

Filing Date: September 29, 2000

Examiner: P. Perkins

Group Art Unit: 2822

Docket No.: M-8570 US

San Jose, California  
May 30, 2002

COMMISSIONER FOR PATENTS  
Washington, D. C. 20231

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RESPONSE TO OFFICE ACTION

Dear Sir:

This is in response to the Office Action with a mailing date of January 31, 2002.  
Please amend the above-referenced application as follows. A one-month extension of time  
accompanies this Response, allowing the Applicants until May 31, 2002 to respond.

06/07/2002 AOSMAN1  
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IN THE CLAIMS

The following is a clean set of the entire set of claims. In accordance with 37 C.F.R. §  
1.121(c)(1)(ii), a marked-up version of the amended claims is included in Appendix A.

1. A method of forming an oriented metal layer on a substrate, the method  
comprising:
- placing the substrate in a deposition chamber comprising a source of metal;
- and
- depositing the metal layer onto the substrate by physical vapor deposition of  
the source of metal under conditions wherein the atmosphere in the deposition  
chamber comprises hydrogen and wherein the hydrogen is activated, whereby the  
metal layer has a preferred crystal orientation.

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May 30, 2002

Commissioner For Patents  
Washington, D.C. 20231

Re: Applicants: Michael Rumer, Jack Griswold, Tom Dorsh, Michael Kwok  
 Leung Ng, David E. Reedy, Paul D. Healey, Michal Danek and  
 Reed W. Rosenberg  
 Assignee: Novellus Systems, Inc.  
 Title: PVD Deposition Process For Enhanced Properties of Metal Films  
 Serial No.: 09/675,627  
 Examiner: Perkins, P.  
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Dear Sir:

Transmitted herewith are the following documents in the above-identified application:

- (1) Return Receipt Postcard;
- (2) This Transmittal Letter (in duplicate);
- (3) Response to Office Action (12 pages); and
- (4) Petition for Extension of Time (1 page).

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No additional fee is required.  
The fee has been calculated as shown below:

**CLAIMS AS AMENDED**

	Claims Remaining After Amendment		Highest No. Previously Paid For		Present Extra	Rate	Additional Fee
Total Claims	22	Minus	22	=	0	x \$18.00	\$ 0.00
Independent Claims	4	Minus	3	=	1	x \$84.00	\$ 84.00
<input type="checkbox"/> Fee of _____ for the first filing of one or more multiple dependent claims per application							\$
<input checked="" type="checkbox"/> Fee for Request for Extension of Time (one month)							\$ 110.00
<b>Total additional fee for this Amendment:</b>							\$ 194.00
<input checked="" type="checkbox"/> Conditional Petition for Extension of Time: If an extension of time is required for timely filing of the enclosed document(s) after all papers filed with this transmittal have been considered, an extension of time is hereby requested.							\$
<input checked="" type="checkbox"/> Please charge our Deposit Account No. 19-2386 in the amount of							\$ 194.00
<input checked="" type="checkbox"/> Also, charge any additional fees required and credit any overpayment to our Deposit Account No. 19-2386.							\$
<b>Total:</b>							\$ 194.00

EXPRESS MAIL LABEL NO:  
EL 937 077 149 US

Respectfully submitted,  
*Norman R. Klivans*  
Norman R. Klivans  
Attorney for Applicants  
Reg. No. 33,003